Analysis of Gun Violence Trends in Amarillo TX, July 2021 - June 2022 Ryan Shawn Herman, Harvard Bloomberg City Leadership Initiative Summer Fellow

Haley Hernandez, APD Crime Analyst Supervisor

| Acknowledgements | 2 |
|---|-----------|
| Executive Summary | 3 |
| Background | 5 |
| Figure 1. Gun violence incidents (January - July) in Amarillo from 2019-2022 | 5 |
| Limitations of Gun Violence Trend Analysis | 6 |
| Trends Pertaining to Gun Violence Offenders in Amarillo | 7 |
| Table 1. Breakdown of Amarillo's gun violence offenders and residents by racial groups, as determi by APD case analysis and the US Census Bureau estimates for 2021 | ined 7 |
| Trends Pertaining to Youth Gun Violence Offenders | 7 |
| Figure 2. Annual percentage of violent crimes committed by juveniles, 2018-2022 | 8 |
| Trends Pertaining to Gun Violence Victims in Amarillo | 9 |
| Trends Pertaining to Gun Violence Locations in Amarillo | 10 |
| Figure 3. Percentage of gun violence occurrence rates and city square mileage by neighborhood in Amarillo, July 2021 - June 2022 | 10 |
| Table 2. Amarillo police beats most and least affected by gun violence, July 2021 - June 2022 | 11 |
| Figure 4. Heat map of gun violence incidents by police beat in Amarillo, July 2021 - June 2022 | 12 |
| Trends Pertaining to Gun Violence Case Clearance in Amarillo | 13 |
| Appendices | 14 |
| Appendix 1. Frequency of gun violence offenders by age, July 2021 - June 2022 | 14 |
| Appendix 2. Frequency of gun violence victims by age, July 2021 - June 2022 | 14 |
| Appendix 3. Frequency of gun violence incidents and drive-by shootings by police beat, July 2021 June 2022 | - 15 |
| Appendix 4. Gun violence incidents in northern police beats in Amarillo, July 2021 - June 2022 | 17 |
| Appendix 5. Gun violence incidents in eastern police beats in Amarillo, July 2021 - June 2022 | 18 |
| Appendix 6. Gun violence incidents in southern police beats in Amarillo, July 2021 - June 2022 | 19 |
| Appendix 7. Gun violence incidents in western police beats in Amarillo, July 2021 - June 2022 | 20 |
| Appendix 8. Population and crime characteristics per Amarillo police beat | 21 |

Acknowledgements

This report would not have been possible without the forward thinking and support from City Mayor Ginger Nelson and Police Chief Martin Birkenfeld of Amarillo, TX. At a time where many police departments around the country have shut out external researchers, Amarillo's leadership and propensity towards open collaboration with outside agencies is both rare and aspirational.

The insights from this report were collected from a number of colleagues across the Amarillo Police Department. We would like to particularly thank Luis Hernandez, Ofc. Hugo Blanco-Realivazquez, Ofc. Susan Dorris, Ofc. Jonathan Kinnison, Ofc. Chris Thompson, Ofc. Michael Woodard, Cpl. Robert Carrell, Cpl. Brian Jackson, Cpl. Thomas Newton, Sgt. Carla Burr, Sgt. Jamie Butler, Sgt. Shea Lichtie, Sgt. Justin Young, Lt. Shane Chadwick, Lt. James Clements, Lt. Warren Gross, Lt. Kevin Korinek, and Cpt. Elizabeth Brown for their guidance, time, and analytical support.

We would also like to share our gratitude with individuals outside of the Amarillo Police Department, namely Jenifer Ramirez of the City Manager's Office, Stacy Sandorskey of Texas Panhandle Centers, Lynne Sacks of the Education Redesign Lab, Michelle Shields of Family Support Services, Carrie Conaway of Harvard Graduate School of Education, and Jessica Herbert and Neil Hubbert of IDEA Analytics.

Finally, we appreciate our various colleagues who offered feedback on this report during its development, specifically Marisa Palmer of Business Insider Today, Yanilda Gonzalez of Harvard Kennedy School of Government, Wayne Byun of Campaign Zero, and LaChaun Banks and Nicah Santos of the Bloomberg Harvard City Leadership Initiative.

Executive Summary

According to police records, gun violence rates in Amarillo are increasing, occurring at about a rate of 1.2 shootings per day, or 1.75 gun violence incidents per 1,000 residents annually. Over the past 12 months, 355 gunrelated incidents have been analyzed to better understand the nature of gun violence in Amarillo. Gun violence offenders in Amarillo are overwhelmingly male and typically have a history of violent criminal activity. Gun violence affects all racial groups and is equally likely to occur between racial groups as it is within racial groups. However, gun violence victims are disproportionately Black compared to the city's population. About one-fifth of all gun violence offenders are suspected or confirmed to have gang affiliations.

A majority of gun violence is perpetuated as an act of aggravated assault, most commonly towards individuals outside of the offender's immediate family or intimate partnerships. However, of gun violence cases with known motives and suspects, over half are precipitated by domestic disputes (conflicts between family members and / or intimate partners).

Gun violence incidents are concentrated in the north-center region of Amarillo. Linear regression analysis reveals that the geographic nature of Amarillo's gun violence is heavily correlated with levels of poverty, home ownership, educational attainment, and unemployment. Of all the available neighborhood characteristics, gun violence in Amarillo is most correlated with unemployment.

Over 60% of all gun violence offenders in Amarillo are under the age of 30 years. Most youth offenders have long, and growing, offense records with APD, with the average youth gun violence offender having 8.3 past offenses and 3.0 past *violent* offenses. About one-fifth of gun violence offenders in Amarillo are school-aged, a population that could benefit the most from more targeted, wraparound social services.

A majority of gun violence cases reported to the APD in the past 12 months went unsolved, had no viable suspects, and had no known motives. Possibly due to the 1) high rates of drive-by shooting and 2) unsustainable caseloads for the APD's detectives, over half of all gun violence cases are deemed inactive or closed due to a lack of information to further pursue investigation. This prohibits the APD from 1) fully understanding the nature of gun violence in Amarillo, 2) bringing justice to an estimated 180 victims annually, and 3) identifying collaborative, community-based methods towards lowering gun violence.

However, of all the gun violence cases where APD had obtained substantial information on, over 83% can be attributed to one of four factors: youth criminal activity, gang violence, domestic violence, and drive-by's. The identification of these four factors offers the APD and the City of Amarillo key intervention points from which to study, monitor, and strategically address.

The following diagnostic presents several opportunities that the APD and City of Amarillo can explore to prevent and reduce gun violence and better protect the city and all its people:

1. Exploration of cross-sector support systems for "at-risk" youth offenders¹: A case study can explore what social services are currently accessible to "at-risk" youth offenders. Geographical analysis

¹ Labels of "high risk", "risky", and "at-risk" can be particularly damaging for individuals, especially youth (<u>Strauss, 2019</u>). Quotation marks are used to denote language in this report that mimics language used most commonly in the public safety sector, although the

- identified the northern neighborhoods of Eastridge, Hamlet, and North Heights as areas most likely to benefit from a cross-sector approach towards supporting youth with violent criminal histories. After a resource-mapping exercise, gaps in the city's social services for such communities can be investigated.
- 2. Identification and partnership with "Problem Properties": Whereas a majority of gun violence incidents in Amarillo occur in residential areas, certain apartment complexes, motels, and entertainment venues are frequent locations for gun violence. Other cities have modeled Problem Properties Task Forces, where a data-driven identification process, utilizing data on outstanding violations, calls to public safety agencies, and other incident reports, is used to identify properties that tend to soak up public safety and neighborhood resources. Problem Property Task Forces are then expected to collaborate with property residents and clients to address quality of life issues while holding property owners accountable.
- 3. Improving identification and monitoring of "high-risk" individuals: The <u>Project Safe Neighborhoods</u> coalition benefits from staying regularly updated and aware of the status of key individuals that pose particular "risk" to the safety of the city. Data analysis methods provided from this report can be used to provide a more objective and thorough methodology for updating and maintaining this list of individuals. As stated above, the use of data-driven practices, such as the statistical analysis of criminal histories, will prove vital in ensuring a non-discriminatory identification system for the APD to better monitor prolific, violent offenders.
- 4. Policy alternative analysis for preventing, addressing, and solving domestic gun violence, gang violence, drive-by shootings, and youth criminal activity. A cost-benefit analysis of different policy options for addressing key elements of Amarillo's gun violence trends will prove useful for Amarillo's city government and the APD in considering different policy alternatives for reducing and better responding to gun violence in the city. Such analysis will need to be preceded by an in-depth literature review, investigation into best practices of comparator police departments in Texas Panhandle cities and, and semi-structured interviews with members of the APD and other government and community service providers.
- 5. Greater collaboration with Potter and Randall District Attorney Offices: Many offenders build increasingly violent offense records without substantial intervention from the criminal justice system after arrest. Such allows violent offenses to go unaddressed, which 1) reduces the community's trust in the effectiveness of the city's law enforcement, 2) places undue pressures on the APD's connection to the federal court system, and 3) leaves the city's youth without adequate resources for guidance, mentorship, and other social services. Enhanced collaboration between the APD and county DA offices could help illuminate the challenges of each agency and create a foundation for greater partnership.
- **6. Strengthening of the APD's gang intelligence systems**: Although Amarillo's gang activity does not reflect that of major cities, gangs are a motivating factor in a large percentage of gun violence in the city and can offer crucial intel to law enforcement and other social service providers on how to best protect and support the city's youth. Comparative analysis of police practices from other Texas Panhandle cities indicates that APD can do more to monitor gang activity in the city. This indicates that APD must develop and operationalize more concrete and effective gang intelligence practices.
- 7. Protocol for monitoring annual gun violence metrics: It will be important for Amarillo to monitor gun violence trends chronologically to assess the impact of various policy strategies. Therefore, year-over-year metrics related to gun violence and an efficient system for monitoring, analyzing, and communicating such metrics will need to be developed.

APD hopes to shift its department away from labeling individuals, especially youth, as "risks". Instead, the APD hopes to shift towards data-driven practices that track an individual's criminal history with the APD to identify individuals with a higher likelihood to reoffend.

Background

According to the Center for American Progress, "from 2019 to 2020, homicides rose by 28 percent across the United States. In the same period, gun homicides rose by 35 percent, and gun-related deaths among Americans ages 19 and younger increased by nearly 30 percent. Gun violence is among the leading causes of death for youth in the United States. This violence disproportionately affects Black and Latino communities" (Warden, 2022).

According to the FBI's 2020 Uniform Crime Report, Amarillo is the fourth most violent city in Texas, with a violent crime rate of 8.36 per 1,000 residents, almost twice that of the state average of 4.50 per 1,000 residents (Neighborhood Scout, 2022; Stebbins, 2020). Although in 2021 Amarillo has seen a decrease in its overall violent crime rate (composed of murder, rape, robbery, and assault charges), there is consensus that shootings are becoming more common within the city (Sakai, 2022). APD's most conservative estimates suggest that current gun violence has risen compared to pre-pandemic levels (Figure 1).

The city of Amarillo and its leadership has demonstrated true efforts towards reducing shootings and utilizing data in its fight against violent crime. In June 2022, sitting city Mayor Ginger Nelson signed and 12 other mayors in Texas called on state lawmakers to take immediate action on gun reform in the aftermath of the Uvalde school shooting (Burch, 2022). Involvement in federal grant programs such as Project Safe Neighborhoods the Smart Policing Initiative are supporting the APD's transition into greater data-driven practices towards crime reduction and public safety.

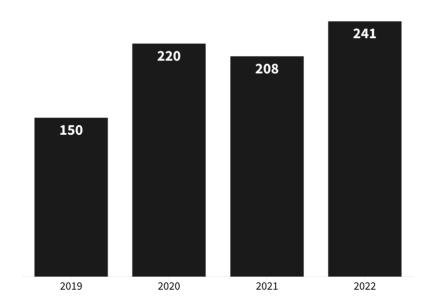


Figure 1. Gun violence incidents (January - July) in Amarillo from 2019-2022

Understanding the root causes behind gun violence trends is of the utmost importance to the city of Amarillo, a city that saw a 40% increase in homicides in 2021 (<u>APD Annual Report 2021</u>). With a modification of the APD's record management system introduced in September 2021, allowing officers to more clearly denote incidents of gun violence, Amarillo is uniquely positioned to leverage internal data sources to better understand gun violence in the city.

Using the APD's record management system, 441 cases of gun violence between July 2021 and June 2022 have been identified for analysis. Of these identified cases, 86 were deemed invalid for inclusion in further analysis², leaving a sample size of 355 cases ranging from July 2021 to June 2022.

According to ongoing data analysis, approximately 1.2 violent shootings occur in Amarillo every day. These are disproportionately targeted towards other civilians not related by familial bonds or intimate partnerships (59.6%), property (21.5%), and family and / or intimate partners (15.0%). Only 1.4% of shooting cases involved commercial agencies as victims. Over 65.8% of analyzed cases were incidents of aggravated assault, with vandalism (23.4%), aggravated robberies (5.4%), and homicides (4.5%) making up smaller proportions of gun violence incidents. In 65.3% of all gun violence cases, guns were deliberately used as a weapon to inflict harm, compared to being used for vandalism (19.2%), as a threat (10.5%), or for self-defense (3.7%).

Limitations of Gun Violence Trend Analysis

It must be noted that the data used in the above analysis faces some key limitations. Firstly, such data only tracks gun violence that is reported to the Amarillo Police Department. There is anecdotal evidence that residents of Amarillo may under report gun violence in their neighborhoods, and therefore, **the above analysis may not capture the full scope of gun crimes in the city**.

Additionally, human error may prohibit all gun violence cases in the city from being accurately captured. For example, about 11% of cases in the APD record management system labeled "shots fired" did not contain any firearm usage at all.

It is also important to note that the below analysis is completely drawn from quantitative data analysis using police records from the APD record management system. While data analysis can offer an objective view of the nature of gun violence in Amarillo, many nuances are not captured by formal datasets. This dataset, pulled from field interviews, narratives, and data collected from the APD record management system, also only reflects the perspectives of police officers affiliated with the APD. Therefore, complementing this quantitative analysis with qualitative findings from semi-structured interviews both with APD staff and with various community groups will be important in ensuring a nuanced and realistic portrayal of Amarillo's gun violence is accurately captured and communicated.

It is best to understand the findings presented in this report as a snapshot of the nature of gun violence in Amarillo, as reported to the police, between July 2021 - June 2022. Due to the recency of the modification to the police record management system, gun violence data is not available prior to July 2021. This prevents this report from comparing the current state of gun violence in Amarillo to historical trends. Similarly, no other city in the Texas Panhandle, to the current understanding of the authors of this report, are conducting similar gun violence analyses in their respective locations. Therefore, this report is also unable to compare and contrast the nature of gun violence in Amarillo to other comparable cities in the Texas Panhandle.

² Gun violence cases were rejected for further analysis if the incident was categorized as a self-inflicted accident, (attempted) suicide, or mercy killing of an animal. Cases were also rejected if the "gun" in use was not an actual firearm (i.e., paintball or BB gun).

Trends Pertaining to Gun Violence Offenders in Amarillo

In the 355 cases of gun violence incidents that occurred within Amarillo within the past 12 months, 176 suspects were properly identified, allowing for general statistical analysis of gun violence offenders in Amarillo.

- The median age of gun violence offenders in Amarillo is 25 years (see Appendix 1). The youngest gun violence offender in Amarillo in the past 12 months was 13 years old. While over 50% of gun violence offenders in Amarillo are under the age of 25 years, only 32.5% of all Amarillo residents are under the age of 25 years.
- Gun violence offenders in Amarillo are overwhelmingly male (88.1%).
- In the past 12 months, 39.4% of gun violence offenders in Amarillo identified as Hispanic, 33.7% identified as Black, and 23.8% identified as white. However, gun violence offenders were disproportionately Black when compared to Amarillo's overall population (see Table 1).
- Only 17.9% of identified gun violence offenders are officially (confirmed by Texas' state identification system, <u>TxGANG</u>) or reasonably suspected to be gang-affiliated.³ Of those offenders with suspected or confirmed gang affiliations, 97.7% are male and the average age was 25 years.
- Most gun violence offenders have previous violent crime offenses. On average, a gun violence offender in Amarillo has 9.7 past offenses (including violent and non-violent) and 3.0 past violent offenses. Interestingly, the average gun violence offender was also victim to 3.0 prior crimes, as documented in APD records.

Table 1. Breakdown of Amarillo's gun violence offenders and residents by racial groups, as determined by APD case analysis and the US Census Bureau estimates for 2021

| Asian | | Bla | Black | | Hispanic | | White | |
|---------------------------|-----------|---------------------------|-----------|---------------------------|-----------|---------------------------|-----------|--|
| gun violence offenders | residents | |
| 3.1% | 4.1% | 33.7% | 6.8% | 39.4% | 33.2% | 23.8% | 53.5% | |

Trends Pertaining to Youth Gun Violence Offenders

Of the 175 identified gun violence offenders in Amarillo from the past 12 months, 60.47% were under the age of 30 years. A majority of these gun violence offenders fall between the ages of 18 - 20 years (29.8%), followed by those between the ages of 24 - 26 years (23.1%).

Of all identified gun violence offenders in Amarillo from the past 12 months, 18.9% are school-aged (and 12.0% are recognized as juveniles by federal and state law). A common narrative seen throughout US media is that the rise in gun violence rates has been fueled by an increase in youth criminality. However, this

³ Comparison of police practices and other characteristics between Amarillo and five Texas sister cities (Abilene, Lubbock, Midland, Odessa, Wichita Falls) reveals that Amarillo may underreport its gangs and gang members. This *may* suggest an under-reporting of gun violence cases connected to gang activity. Information on gang member identification collected from the <u>TxGANG</u> system.

narrative is rarely supported by the data (<u>Muhammad, 2022</u>). In Amarillo, the number of crimes committed by youth has not increased, and has even decreased from pre-pandemic levels, from 2,978 youth offenses in 2019 compared to a projected 2,107 in 2022. However, youth crime in Amarillo has become more violent in nature, with the annual proportion of crimes committed by youth of a violent nature increasing from 31.78% in 2018 to 39.08% in 2022.

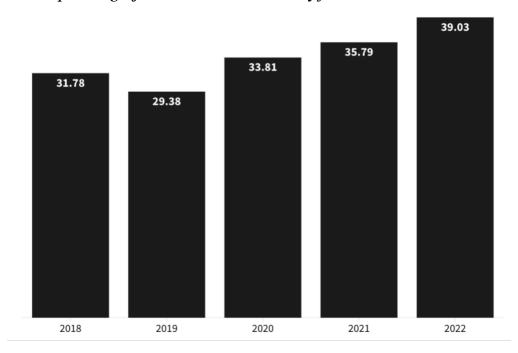


Figure 2. Annual percentage of violent crimes committed by juveniles, 2018-2022

The APD, and the greater Amarillo community, stands to benefit from properly identifying and targeting social service programming to youth offenders who are most "at-risk" of reoffending. Pooling data from various sources, 53 Amarillo juveniles have been identified who exhibit high probability for reoffending, based upon either extensive criminal records and / or gang affiliations and activity. The greatest density of these "at-risk" juveniles resides in Amarillo's northern neighborhoods of Eastridge, Hamlet, and North Heights.

Such concentration of youth with violent criminal histories calls for investigation into the potential for community-based, cross-sector programming in Amarillo's northern neighborhood targeted towards such offenders to reduce the risk of re-offending. Amarillo has a robust social service sector, but youth with ongoing involvement in criminal activity are typically disqualified from such services. Such barriers leave the youth identified above without access to high-quality social services such as mentorship, counseling, and behavioral health therapy. However, cities like Boston have demonstrated how cross-sector programming aimed at can reduce violent crime rates, supporting youth engaged in criminal activity with holistic supports such as summer job programs, community mentorship, exit programs for gang-involved youth, and other youth development initiatives (Eisenberg & Preston, 2022). Amarillo's understaffed social service agencies would not be able to initiate such programs without substantial collaboration and engagement form the community, evidencing the need for City Council to explore Community-Based Violent Intervention programs which "work to reduce homicides and shootings through trusted partnerships between community stakeholders, individuals most affected by gun violence, and government" (Amaning & Bashir, 2022).

Trends Pertaining to Gun Violence Victims in Amarillo

Within a sample of 130 gun violence cases that occurred within Amarillo in the past 12 months, 103 gun violence victims were properly identified, allowing for general statistical analysis of gun violence victims in Amarillo.

- The median age of gun violence offenders in Amarillo is 28 years (see Appendix 2). The youngest victim in Amarillo was 14 years old. On average, gun violence victims are older than gun violence offenders.
 - Based on a limited subsample of 67 cases where information on both gun violence victim and offender age is known, we can conclude that it is 1.47 times more likely that the gun violence offender is younger than their victim.
- A majority of gun violence victims in Amarillo **are male (65.7%),** but women are disproportionately impacted as gun violence victims (34.3%) compared to gun violence offenders (11.9%).
- Over the past 12 months, 43.0% of gun violence victims identified as white, closely equivalent to the proportion of white citizens in Amarillo's overall population (53.5%). **Gun violence victims are disproportionately Black when compared to Amarillo's overall black population** (23.0% versus 6.8%, respectively).

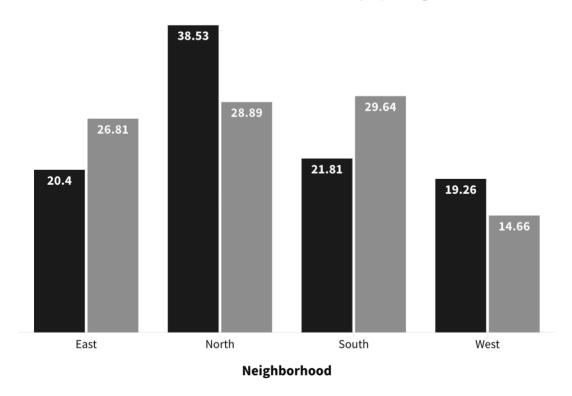
Gun violence cases within Amarillo do not consistently follow racial patterns, with shootings approximately likely to occur within the same racial group as between racial groups (55.4% vs. 44.6%, respectively). Overall, 70.6% of gun violence perpetrated by white offenders is against white victims, 52.0% of gun violence perpetrated by Hispanic offenders is against Hispanic victims, and 47.8% of gun violence perpetrated by Black offenders is against Black victims.

Trends Pertaining to Gun Violence Locations in Amarillo

Over a third of all gun violence cases in the past six months have occurred in Amarillo's northern neighborhood. Almost half of all known drive-by incidents also occur within the northern neighborhoods (see Appendix 3). Interestingly, although the southern neighborhood is usually typecasted as the city's safest area, it hosts a larger proportion of gun violence cases than does the western neighborhood (21.81% vs. 19.26%, respectively). However, when controlling for geographical area, the northern neighborhood hosts the greatest proportion of gun violence per square mile, followed closely by the western neighborhood.

Figure 3. Percentage of gun violence occurrence rates and city square mileage by neighborhood in Amarillo, July 2021 - June 2022

■ % of Gun Violence Incidents
■ % of City Sq. Mileage



The police beats with the greatest and lowest gun violence rates are listed below. **Based on this analysis, the area** in Amarillo with the most gun violence would be the northern neighborhoods located within beat 34. See Appendix 3 for a break-down of gun violence cases and drive-by shootings by police beat.

Gun violence rates vary across police beats, allowing for correlational analysis between gun violence and other population characteristics, such as educational attainment, home ownership, employment, and poverty. Police beats with higher violent crime rates also tend to have higher rates of unemployment, higher rates of poverty, lower rates of home ownership, and lower levels of educational attainment. Conversely, property crime rates appear uncorrelated with gun violence rates.

Table 2. Amarillo police beats most and least affected by gun violence, July 2021 - June 2022

| Highest Rates o | of Gun Violence | Lowest Rates of Gun Violence | | |
|-----------------|--|------------------------------|--|--|
| Police Beat | Gun Violence Rate per 1,000 Residents | Police Beat | Gun Violence Rate per 1,000 Residents | |
| 34 | 7.57 | 57 | 0.20 | |
| 32 | 6.31 | 56 | 0.30 | |
| 33 | 4.72 | 55 | 0.33 | |
| 63 | 4.48 | 65 | 0.35 | |

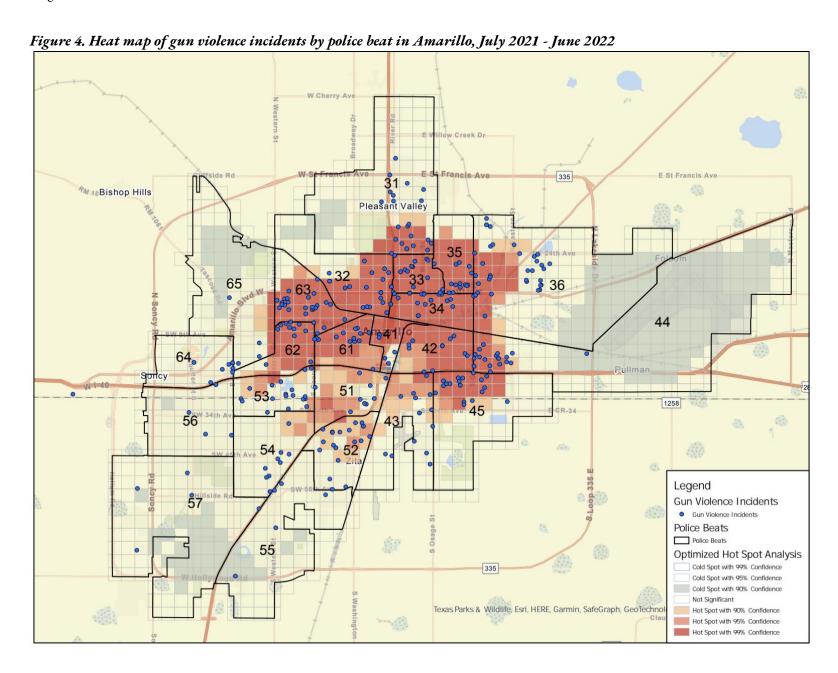
Unemployment is the single greatest predictor of high gun violence rates in Amarillo. Despite a city unemployment rate of 3.2% (on par with the national average), neighborhood unemployment rates in Amarillo reach as high as 8.18%, almost twice as high as the state average (<u>Gay, 2022</u>; <u>Texas Workforce Commission, 2022</u>). More information is needed on what drives such unemployment in these specific neighborhoods and how unemployment and violent crime influence each other in Amarillo.

When only considering gun-involved homicides, a majority of murders have occurred in the northern neighborhood (47.1%), followed by the western neighborhood (23.5%). A significant majority of gun violence incidents occur within residential areas (65.2%), followed by commercial areas (15.6%) and major roadways (11.9%). Interestingly, less than 1% of all violent shootings to occur within the past 12 months in Amarillo occurred on or near school grounds.

A hot spot analysis of gun violence incidents shows that a majority of shootings occur within the north-center region of the city (police beats 33 - 35, 41, 42, and 61-63). This would indicate that, *in response to gun-related crimes only*, police resources would be best deployed to monitor the above stated beats.

However, it is important to note that the goal of this report is to diagnose gun violence trends and identify potential solutions. Hot spot analyses have been utilized in the past to encourage overly aggressive and discriminating police crackdowns in identified high-crime areas, a tactic that can produce increased resentment and fear of police. The goal of hot spot analysis is to determine what communities are most affected by gun violence in the city and indicate where there could be greater support from various city services. The goal of the City of Amarillo is to ensure that current high-crime neighborhoods are supported holistically through the provision of a diverse set of services, not just the police force.

There is a weaker, but still prevalent occurrence of gun violence occurring in the southern police beats of 51 and 52 that require greater attention from APD. So-called "cold spots" (areas where gun violence is least likely to occur, as determined by statistical analysis) can be found on the southwestern, northwestern, and eastern outskirts of the city, specifically police beats 65, 57, 55, and the eastern region of police beat 44.



Trends Pertaining to Gun Violence Case Clearance in Amarillo

In the 355 gun violence cases from the past 12 months, 51.7% have been deemed inactive or were closed by the APD. This equates to over 180 violent shooting cases that went unsolved in one year alone. The low rate of case clearance of violent shootings in Amarillo is a result of several factors. Anecdotal evidence indicates a lack of victim and bystander cooperation prevents APD from obtaining substantial leads for further investigation. Low case clearance of violent shootings can also be explained by the large number of "drive-by" cases that Amarillo experiences, where 36.4% of analyzed cases include firearms shot from moving cars. In such cases, where APD is alerted to "shots fired" service calls shortly after shots are heard by residents, it has proven difficult for officers to determine viable suspects. As gun violence in Amarillo has increased, the APD Detective Division has been inundated with violent crime cases, preventing appropriate resources being allocated to every case as needed. Notably, in the 355 gun violence cases analyzed, less than half identified at least one viable suspect.

Furthermore, the motivation behind gun violence cases is rarely uncovered by the APD, with over half of all incidents having unclear motives. Of gun violence cases with known motives, 46.9% are motivated by domestic disputes (disputes between family members or intimate partners). Over a third of gun violence cases motivated by domestic disputes occur within Amarillo's western neighborhood, with a lesser, but still significant proportion occurring in Amarillo's eastern (26.7%) and northern (23.3%) neighborhoods.

Although we can imagine that the development of the APD's Real-Time Crime Center will boost criminal intel through its "collection of video streams, automatic license plate readers, data integration and drones", other actions must be taken to improve community cooperation with the APD, an end-goal which can only be preceded by improved relationships between the City of Amarillo and its citizens (Riggs, 2022).

Of all the gun violence cases where APD had obtained substantial information on, over 83% can be attributed to one of four factors:

- 1. Youth criminal activity
- 2. Gang violence⁴
- 3. Domestic violence
- 4. Drive-by's

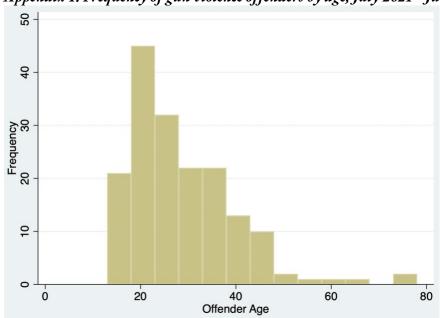
Strategies to better prevent and respond to drive-by shootings, gang violence, domestic violence, and youth criminal activity should be a clear priority of APD moving forward. Another factor worth further investigation is the connection between gun violence and drug / alcohol abuse. Over the past 12 months, 33.3% of gun violence offenders were under the influence of drugs during their offense, most commonly alcohol (69.6%). It is also important to note that only two gun violence cases (1.5%) were perpetrated by individuals experiencing mental health crises.⁵

⁴ Gang activity in Amarillo is not traditional. Most gang members in Amarillo operate in rapidly-changing and diffuse <u>hybrid gangs</u> that are more difficult to identify and monitor than mainstream gangs that are more common in larger cities.

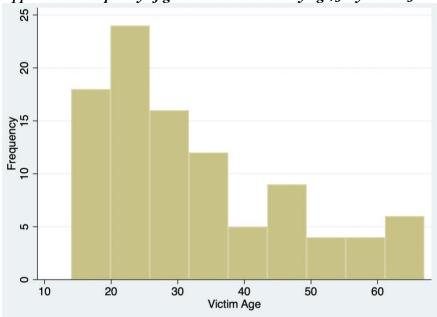
⁵ Identification of mental health crises in this analysis was not achieved through verification of documented mental illness diagnoses, but from subjective first responder data.

Appendices

Appendix 1. Frequency of gun violence offenders by age, July 2021 - June 2022



Appendix 2. Frequency of gun violence victims by age, July 2021 - June 2022



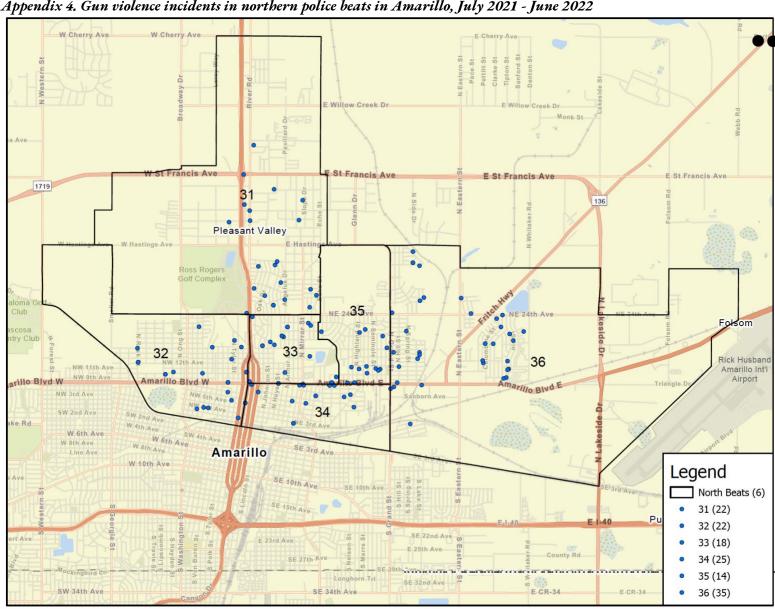
Appendix 3. Frequency of gun violence incidents and drive-by shootings by police beat, July 2021 - June 2022

Red-highlighted cells demonstrate the four police beats with the highest percentages of gun violence incidents in the city. Green-highlighted cells demonstrate the four police beats with the lowest percentages of gun violence incidents in the city.

| Beat | Incidents (counts) | dents (counts) Percentage of All Incidents Drive-bys | | Percentage of all Drive-bys | | | | | |
|-------------|--------------------|--|----|-----------------------------|--|--|--|--|--|
| NORTH BEATS | | | | | | | | | |
| 31 | 21 | 5.98 | 11 | 8.53 | | | | | |
| 32 | 17 | 4.84 | 8 | 6.20 | | | | | |
| 33 | 19 | 5.41 | 8 | 6.20 | | | | | |
| 34 | 26 | 7.41 | 12 | 9.30 | | | | | |
| 35 | 14 | 3.99 | 3 | 2.33 | | | | | |
| 36 | 35 | 9.97 | 19 | 14.73 | | | | | |
| CUMULATIVE | 132 | 37.29 | 60 | 46.51 | | | | | |
| | | EAST BEATS | | | | | | | |
| 41 | 9 | 2.56 | 1 | 0.78 | | | | | |
| 42 | 14 | 3.99 | 9 | 6.98 | | | | | |
| 43 | 17 | 4.84 | 6 | 4.65 | | | | | |
| 44 | 19 | 5.41 | 11 | 8.53 | | | | | |
| 45 | 19 | 5.41 | 7 | 5.43 | | | | | |
| CUMULATIVE | 79 | 22.32 | 35 | 27.1 | | | | | |
| SOUTH BEATS | | | | | | | | | |
| 51 | 11 | 3.13 | 4 | 3.10 | | | | | |
| 52 | 19 | 5.41 | 4 | 3.10 | | | | | |
| 53 | 16 | 4.56 | 4 | 3.10 | | | | | |
| 54 | 12 | 3.42 | 2 | 1.55 | | | | | |
| 55 | 3 | 0.85 | 1 | 0.78 | | | | | |
| 56 | 5 | 1.42 | 0 | 0.00 | | | | | |
| 57 | 5 | 1.42 | 2 | 1.55 | | | | | |

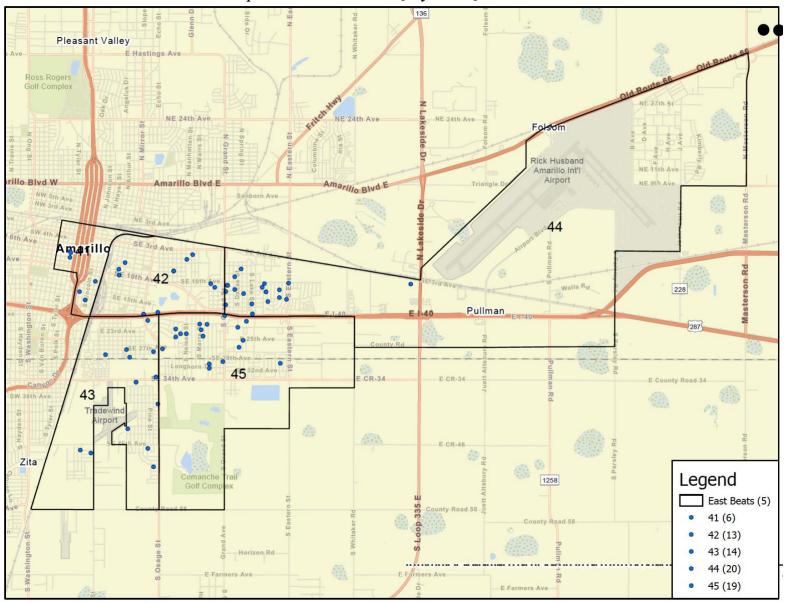
August 18th, 2022

| CUMULATIVE | 73 | 20.62 | 17 | 13.2 | | | | |
|------------|----|-------|----|------|--|--|--|--|
| WEST BEATS | | | | | | | | |
| 61 | 16 | 4.56 | 3 | 2.33 | | | | |
| 62 | 12 | 3.42 | 6 | 4.65 | | | | |
| 63 | 23 | 6.55 | 5 | 3.88 | | | | |
| 64 | 14 | 3.99 | 2 | 1.55 | | | | |
| 65 | 4 | 1.14 | 1 | 0.78 | | | | |
| CUMULATIVE | 69 | 19,49 | 17 | 13.2 | | | | |



Appendix 4. Gun violence incidents in northern police beats in Amarillo, July 2021 - June 2022

Appendix 5. Gun violence incidents in eastern police beats in Amarillo, July 2021 - June 2022



Appendix 6. Gun violence incidents in southern police beats in Amarillo, July 2021 - June 2022 W 16th Ave W Loop 335 SE 15th Ave Amarillo Blvd W 51 SE 27th Ave SW 34th Age SE 34t W CR-34 SW 34th Ave 56 Tradewind Airport SE 46th Ave Zita John S. St Hillside Rd Stardust Ln 57 Greenways Park Arden Rd 55 Legend South Beats (7) • 51 (10) 52 (22) 53 (19) 54 (11) 55 (5)

56 (5) 57 (5)

W Trammel Ave

W St Francis Ave 287 1719 Pleasant Valley E Hasting W Hastings Ave W Hastings Ave Cliffside Ross Rogers Golf Complex Tascosa Country Club 65 NW 11th Ave Amarillo Bly Amarillo Blvd W NW 6th Ave NW 3rd Ave Gem Lake Rd NE 3rd SE 3rd Amarillo 9th Ave Legend 62 64. West Beats (5) ор 335 61 (16) Amarillo Blvd W 62 (13) Wolflin Ave Soncy Albert Ave 63 (26) 64 (9) Olsen Blvd • 65 (4)

Appendix 7. Gun violence incidents in western police beats in Amarillo, July 2021 - June 2022

Appendix 8. Population and crime characteristics per Amarillo police beat

| Beat Number | Gun Violence Incidents | 2022 Total | | 2022 Pop Age 25+: HS Diploma | 2022 Renter Occupied Rate | 2020 HHs w/ SNAP | 2022 Unempl. Pop 16+ | 2020 HHs: Below Pov. Lv. | 2022 Prop. Crime | Square Miles |
|----------------|---------------------------|------------|-------|---------------------------------|------------------------------|---------------------|-------------------------|-----------------------------|---------------------|-----------------|
| 31 | 22 | 9149 | 2.41 | 31.55 | 35.32 | 20.15 | 5.61 | 18.13 | 92 | 9.35 |
| 32 | 22 | 3488 | 6.31 | 26.82 | 50.69 | 26.26 | 8.18 | 36.6 | 204 | 3.75 |
| 33 | 18 | 3811 | 4.72 | 33.19 | 45.03 | 31.22 | 6.09 | 26.44 | 147 | 1.16 |
| 34 | 25 | 3304 | 7.57 | 27.03 | 46.51 | 12.81 | 6.3 | 23.36 | 194 | 1.67 |
| 35 | 14 | 7161 | 1.96 | 29.35 | 48.9 | 27.76 | 2.76 | 35.31 | 150 | 1.86 |
| 36 | 35 | 11353 | 3.08 | 31.94 | 37.62 | 14.39 | 3.89 | 26.28 | 101 | 12.21 |
| 41 | 6 | 587 | 10.22 | 31.88 | 73.19 | 34.59 | 4.23 | 55.64 | 435 | 0.85 |
| 42 | 13 | 4146 | 3.14 | 25.95 | 44.24 | 17.61 | 5.44 | 26.47 | 266 | 2.19 |
| 43 | 14 | 8125 | 1.72 | 25.12 | 35.16 | 13.67 | 1.47 | 13.59 | 106 | 3.69 |
| 44 | 20 | 6276 | 3.19 | 28.78 | 42.69 | 7.68 | 2.73 | 9.02 | 138 | 15.27 |
| 45 | 19 | 8405 | 2.26 | 24.66 | 23.83 | 13.37 | 1.94 | 14.93 | 138 | 5.86 |
| 51 | 10 | 8062 | 1.24 | 16.28 | 38.18 | 2.98 | 3.5 | 4.68 | 147 | 2.30 |
| 52 | 22 | 11916 | 1.85 | 23.65 | 34.05 | 11.77 | 5.85 | 10.85 | 101 | 2.43 |
| 53 | 19 | 7896 | 2.41 | 21.03 | 50.04 | 11.82 | 3.55 | 14.56 | 208 | 2.06 |
| 54 | 11 | 16646 | 0.66 | 18.01 | 41.77 | 10.63 | 5.42 | 14.41 | 143 | 3.37 |
| 55 | 5 | 15300 | 0.33 | 18.81 | 9.99 | 2.12 | 2.81 | 3.99 | 355 | 6.33 |
| 56 | 5 | 16716 | 0.30 | 16.52 | 31.9 | 3.69 | 2.36 | 7.92 | 156 | 3.95 |
| 57 | 5 | 24667 | 0.20 | 14.2 | 21.25 | 1.44 | 2.27 | 4.58 | 194 | 10.37 |
| 61 | 16 | 6031 | 2.65 | 18.89 | 65.6 | 12.21 | 2.44 | 11.4 | 325 | 1.74 |
| 62 | 13 | 7223 | 1.80 | 22.96 | 50.02 | 21.31 | 2.47 | 24.69 | 184 | 1.64 |
| 63 | 26 | 5809 | 4.48 | 24.57 | 60.63 | 27.72 | 6.38 | 30.84 | 238 | 2.38 |
| 64 | 9 | 4411 | 2.04 | 25.07 | 89.41 | 15.91 | 0.62 | 19.63 | 452 | 2.57 |
| 65 | 4 | 11275 | 0.35 | 18.9 | 33.51 | 5.85 | 2.14 | 7.9 | 130 | 6.90 |